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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,132	12/14/2001	Carmen Flosbach	FA1043 US NA	8944

23906 7590 10/03/2003

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
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WILMINGTON, DE 19805

EXAMINER

MICHENER, JENNIFER KOLB

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,132

Applicant(s)

FLOSBACH ET AL.

Examiner

Jennifer Kolb Michener

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5/6/02
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-7 and 11-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending Application No. 09/921,815. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ultraviolet curing of the copending application provides some degree of heat, as required by the curing step of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 1, 3-5, and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodman et al. (US 5,891,292) in view of Negele et al. (US 6,221,439 B1).

Goodman teaches a repair method comprising providing a thermosetting repair coating to a removable, peel-ply backing in a partially cured, "tacky" state. Since the repair coating is said to be "thermosetting" and because it is rendered tacky, i.e. partially cured, by infrared heating, the coating is "thermally curable" as required by the claim.

The thermosetting repair coating is then applied directly to the damaged area and cured in place using radiation (col. 9, lines 38-68). While Goodman does not specifically teach removal of the backing film, it is Examiner's position that the removable peel-ply backing is inherently removed, as such a backing is used merely for transporting and storing the repair patch material in a rolled form.

Regarding the requirement that thermal energy be applied to the applied coating, Goodman does not specifically teach the use of thermal energy. However, Goodman does teach that the coating is thermosetting and that infrared heat is used to render it partly cured. Additionally, the curing applied is said to be "radiation curing", a genus of which thermal, infrared heating is a member. As evidence of such, Negele is cited for teaching that infrared and thermal sources are members of the group of "radiation" suitable for curing repair coatings (col. 3, line 36).

Since Goodman teaches a thermosetting coating, cured by radiation, and Negele teaches heat or IR as members of the radiation class suitable for curing, Negele would have reasonably suggested the use of IR heat or other thermal source of curing in the

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method of Goodman. It would have been obvious to one of ordinary skill in the art to use the teachings of Negele in the method of Goodman with the expectation of successful results since thermal and/or IR sources are suitable for radiation curing.

The limitation of claim 3 has been addressed above.

Regarding claims 4-5, at least some of the compositions of columns 4-5 appear to be polymerizable by free radicals. Additionally, the polymer chains of the compositions go through polyaddition reactions to polymerize and cure.

Regarding claim 7, the use of pressure to apply the coated backing film to the substrate in need of repair is inherent. Some degree of pressure to put the repair patch into place would be required.

Regarding claim 8, the use of IR is taught above.

Regarding claim 9, requiring the wavelengths and intensity of the IR radiation, it is Examiner's position that selection of optimum wavelengths and intensities would have been within the skill of an ordinary artisan desiring to minimize the time or cost of the coating method while still safeguarding the substrate and coating materials from degradation. It is well settled that determination of optimum values of cause effective

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variables such as these process parameters is within the skill of one practicing in the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980).

Regarding claim 10, requiring the use of "contact heating" it is Examiner's position that the radiation heat teaching is inclusive of contact heating. Additionally, it is known in the "patch" art to use contact heating, such as with the use of an iron, to apply a repair patch. It would have been obvious to one of ordinary skill in the art to select contact heating from the broad class of heating with the expectation of successful results since contact heating is a known method of applying patches to damaged substrates.

Regarding claim 11, the blemishes of Goodman would be "small" relative to recoating the entire surface.

Repairing aircraft, or the like, is "industrial", as required by claim 12.

7. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodman in view of Negele as applied to claims 1, 3-5, and 7-12 above, and further in view of Smith et al. (5,166,007).

Goodman in view of Negele teach that which is disclosed above, but fail to teach supplying the heat through the backing film or supplying a backing film with a protective film also thereon.

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Goodman does not specify when his "removable peel-ply" backing is removed. In the absence of a showing of criticality, it is Examiner's position that it would have been obvious to one of ordinary skill in the art to apply heat before or after removal, interchangeably, so long as the backing material were heat stable. Examiner cites Smith to teach the same.

Smith teaches application of radiation to a repair patch through a transparent backing (21) film in a patch comprising protective film (14, 20) in addition to the backing film.

Since Goodman teaches application of radiation to cure a repair patch and Smith teaches application of such radiation through the backing layer of a multi-layer backing film, Smith would have reasonably suggested supplying the IR radiation of Goodman in view of Negele through the backing film of their invention. It would have been obvious to one of ordinary skill in the art, using the teachings of Smith, to radiate the coating through the backing film with the expectation of successful results because other similar repair methods are successfully operated in such a manner.

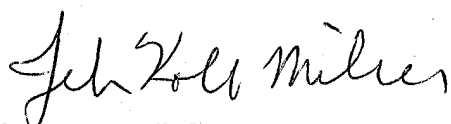
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Kolb Michener whose telephone number is 703-306-5462. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on 703-308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jennifer Kolb Michener
Patent Examiner
Technology Center 1700
September 28, 2003